SCHOOL of DENTISTRY

DOCTOR of DENTAL SURGERY
BACHELOR of SCIENCE IN DENTAL HYGIENE

2006–08 CATALOG
# Table of Contents

A Tradition of Pioneers ................................................. 2  
Overview of the School .................................................. 5  
Student Life ............................................................... 9  
Bachelor of Science in Dental Hygiene ................................. 12  
Doctor of Dental Surgery .............................................. 20  
The University of Minnesota and the Twin Cities .................. 31  
Quick Facts ............................................................... 32  
Resource Guide .......................................................... 33  
Index ................................................................. 35
On behalf of our students, staff and faculty, I am pleased to learn of your interest in the dental profession and the University of Minnesota School of Dentistry. With the unprecedented level of dental treatment needs in our society, the confidence and trust the public has for our judgments, and the availability of some amazing technologies, I contend that there has never been a better time to enter our profession.

As one of the outstanding dental schools in the world, we are committed to:

- Graduating dental professionals who provide the highest quality of care and service to the people of Minnesota and the world;
- Discovering new knowledge through research, which will inspire innovation in the biomedical, behavioral and clinical sciences;
- Providing oral health care to a diverse patient population in a variety of settings; and
- Providing objective, evidence-based clinical and independent learning experiences for dental professionals.

Our students enjoy a challenging clinical education in a supportive environment that is rich with opportunities for professional growth and community involvement.

We are proud of our school and our reputation for excellence, and invite you to explore more fully the opportunities we offer.

Patrick M. Lloyd, D.D.S., M.S.
Dean
In 1888, Edith H. White set aside her love for travel, fencing and mountain climbing to join 21 young colleagues at the University of Minnesota College of Dentistry. They were the first class at a new dental school, and a faculty of four taught these inaugural students how to run a dental engine with a foot pedal, how to make their own lab and clinical instruments and how to protect the oral health of future patients. When the new dentists graduated three years later and launched their practices—some in Midwestern hometowns and others as far away as Alaska’s Yukon Territory, where Edith White followed the gold rush—they were hailed not only as health care experts with valued skills, but also as true pioneers.

That leadership tradition still thrives at the School of Dentistry. The dental hygiene baccalaureate program is the only dental hygiene program in the state that offers a baccalaureate degree and is associated with a dental school. The faculty is known throughout the world for significant contributions to ongoing dental research and technology. And although today’s students no longer make their own instruments, they remain pioneers—in research, in education, in clinical services, in outreach and in excellence.

**Pioneering Through Research**

Were Edith White in today’s class, she would not have to navigate the Yukon to find excitement. Exploring current research would offer adventure enough.

The School of Dentistry has pioneered research in pain control, fluoridation, microbiology and disease prevention. In 1990, a $2.5 million National Institutes of Health grant helped launch the Oral Health Clinical Research Center, one of only four U.S. centers funded to transfer research and technology advances into clinical areas to enhance diagnosis, prevention and treatment of oral diseases.

The School is also a world leader in cancer pain research, discoveries that link oral disease with...
University of Minnesota College of Dentistry is founded as a division of the Department of Medicine.

1888

Started with four professors, the College is the 8th university-based dental school in the U.S. Dr. Gainsford Ridgeway is the School’s first graduate.
Gophers play their first football game against Wisconsin and win 63-0.

At the intramural level, the “Dents” and “Medics” compete fiercely to defend the honor of their respective schools.

Reaching Out to Support Communities

Edith White and her classmates gained part of their clinical experience by dispensing free care in a building on Seven Corners in Minneapolis, near their school. That community outreach tradition not only continues, it has expanded beyond city and county borders.

Today, School of Dentistry students treat patients in on-site clinics—more than 100,000 patient visits annually—where they provide general dental and dental hygiene services, as well as pediatric and geriatric dental services (the geriatric dentistry training program is the nation’s first).

The School also provides a full range of specialty services, including orthodontic, endodontic, periodontic, oral diagnosis/radiology, oral pathology, prosthodontic, and oral and maxillofacial surgery. Patients with special needs also visit clinics that work with cleft lips and palates, facial dental anomalies, smoking cessation, temporomandibular joint/chronic facial pain, and dental implants.

Dental and dental hygiene students also enhance their skills in community-based service learning programs. At the Union Gospel Mission in St. Paul, the low-income and homeless receive free services. Students treat patients at two inner-city clinics and five Twin Cities nursing homes. They travel to the School’s Hibbing Dental Clinic, located 200 miles north of the Twin Cities on the campus of the Hibbing Community College, and they treat patients in metropolitan and out-state communities aboard a three-chair mobile dental clinic.

The School of Dentistry has also exchanged students and faculty with countries throughout the world since 1921. By the 1980s, these teaching, research and consulting experiences had touched 88 countries, from Australia to Tobago. Faculty and students have provided dental care to a vast array of international patients, from Republic of Malagasy villagers to Vietnamese refugees to members of the royal family in Qatar (where the palace dental clinic boasts Persian rugs and Italian marble walls).

Launching Leaders

Like Edith White, whose career took her from Minneapolis to Chicago to Alaska, those who choose a career in dentistry can expect a challenging and rewarding future. An aging population, changing patterns of dental care and an expanding health care sector point to a strong demand for dentists and dental hygienists in the next 10 to 15 years. Research and technology advances promise that tomorrow’s dentists and dental hygienists will deliver a wider range of dental and dental hygiene services than ever before.

Many dentists and dental hygienists work in private or group practices. Excellent career opportunities also exist in teaching and research, in government agencies, or in industry.

As the face of dentistry across the country continues to grow and change, so, too, must the way in which dental schools teach and students learn. The pioneering tradition that has served the School of Dentistry since 1888, and led to outstanding performance in research, education and community service, is not just important to the future of today’s aspiring dental health care providers. Like the leaders it launches, it is essential.
Overview of the School of Dentistry

Vision: We set the standard in education, research and service.

Mission: The University of Minnesota School of Dentistry improves oral and craniofacial health by educating clinicians and scientists who translate knowledge and experience into clinical practice.

The School is committed to:

- graduating professionals who provide the highest quality care and service to the people of Minnesota and the world;
- discovering new knowledge through research, which will inspire innovation in the biomedical, behavioral and clinical sciences; and
- providing oral health care to a diverse patient population in a variety of clinical settings.

The School of Dentistry is part of the health sciences complex on the University of Minnesota’s Minneapolis campus. Its main offices, classrooms, clinics, laboratories, reading and resource rooms are located in the Malcolm Moos Health Sciences Tower, a state-of-the-art setting for research, teaching and practicing dentistry and dental hygiene. Anatomy and histology laboratories are located in an adjacent building.

Administrative Offices:
School of Dentistry
15-209 Malcolm Moos Health Sciences Tower
515 Delaware Street S.E.
Minneapolis, MN 55455
www.dentistry.umn.edu

Accreditation and Membership
Predoctoral dental and undergraduate dental hygiene programs and all specialty training programs are accredited by the Commission on Dental Accreditation. The School of Dentistry is a member of the American Dental Education Association.

Degrees Offered
The dental and dental hygiene programs emphasize scientific, scholarly, interpersonal communication and practice management skills required of graduates in a continually changing

“The Center for Contemporary Dentistry places Minnesota on the cutting edge of contemporary dental education.”
Dr. Dan Skaar
Interim Chair
Department of Primary Dental Care

“The Center for Contemporary Dentistry is a state-of-the-art restorative clinic.”

School’s first dean, William X. Sudduth, introduces hypnotism as an “anesthetic” in his popular oral surgery lectures.

In 1894, patients wishing to have teeth extracted with ether pay a deposit of one dollar on artificial teeth.
The School of Dentistry has earned an international reputation for its educational, clinical, research, service and patient care programs.

The use of x-rays as a diagnostic tool becomes available for dental practice and instruction.

In 1905, the School’s operating costs are $21,387, of which half is earned from clinic services.
Fire damages Medical Hall; dental classes resume 10 days later in temporary facilities.

In 1916-17, the School’s D.D.S. program expands to four years for “preparation of dental surgeons of the best type.”

An Acclaimed Research Institution

The School’s research faculty has pioneered discoveries in cancer pain research, fluoride, the link between bacteria in dental plaque and heart disease, and is making promising advancements in knowledge about molecular motors and how DNA is packaged into viruses.

The Artificial Mouth, a research tool for measuring the strength of dental materials was developed here. The Artificial Mouth can duplicate the effects of one year of chewing in a single day, allowing a unique opportunity to evaluate new dental materials.

School researchers also developed the Virtual Dental Patient, a computerized, three-dimensional imaging program capable of indexing and measuring clinical outcomes and predicting a patient’s oral health problems.

Special Clinics

The Center for Contemporary Dentistry offers students and faculty an opportunity to use the most advanced technology available. The Center features the latest in operatory equipment, clinical and administrative software, digital radiology, intra-oral camera and air abrasion systems, clinical microscopy and a CADCAM restorative system. The center is generously supported by Patterson Dental Supply, Inc.

The Cleft Palate, Craniofacial Anomalies, and Orofacial Pain Clinics provide interdisciplinary student training and patient services for people with congenital or acquired defects. A head and facial pain clinic evaluates and treats patients with chronic pain.

On-Site Patient Care Clinics, staffed by students and faculty, account for more than 100,000 patient visits annually. Students also fine-tune clinical skills in off-site clinics that provide dental and dental hygiene services to rural Minnesota communities, children of migrant workers and the urban homeless.

Continuing Education

Internationally recognized for excellence in continuing dental education, the School provides objective, evidence-based lecture, laboratory, clinical and independent learning experiences for dental professionals. Dental and dental hygiene students are encouraged to participate in selected courses during their senior year. Dental graduates are eligible to attend lecture programs at no cost for 18 months after graduation.

Alumni Support

The School has an active alumni organization whose generous mentoring and financial commitments support educational programs, endowments and research projects. Dentistry magazine is published twice a year for alumni, friends, donors, students and parents to inform them about School news and activities.

Policies

For a complete listing of School of Dentistry policies, see the Student Handbook or go to the School’s Web site, www.dentistry.umn.edu. For a complete listing of University of Minnesota policies, go to www.umn.edu/usenate.

International applicants who are accepted to the four-year dental program must guarantee sufficient funds to meet all educational and personal expenses during their F-1 status at the University.

Smoking is prohibited in all facilities of the University except for designated private residence hall rooms.
Early graduation allows two-thirds of the dental class to serve in the U.S. Army as first lieutenants in the Dental Reserve Corps.

In 1918, the entire class of 90 students enlists in the Dental Reserve Corps.
Student Life

Dental and dental hygiene students participate in a variety of organizations that provide an introduction to professional life and a voice in shaping the future of dentistry.

Undergraduate dental and dental hygiene students have representatives with voting privileges on School of Dentistry committees that deal with student concerns, including the Educational Policy Committee, Council of Students, Student Affairs Committee, School of Dentistry Alumni Society, admissions committees, and various task force groups. These committees address issues related to admissions, educational policy and programs, student affairs, ethics, alumni relations, publications, financial aid, counseling, tutorial assistance and clinical affairs.

Students also participate in student organizations, including the Center for Health Interdisciplinary Participation, an organization for students in the Academic Health Center, and the Graduate and Professional Student Association, which represents the interests of University graduate and professional students.

National Organizations

The American Student Dental Association is a student-run organization representing the interests of dental students. The Minnesota chapter sponsors student functions and provides information about practice management, managed care and legislative issues. Two representatives from each class serve as board members. Students may serve on eight standing

“You can treat patients in Australia, lobby legislators, and make friends you’ll keep for life.”

Ryan Ritchie
Senior Dental Student

“Education must be involved in the affairs of the world, concerned with the community and committed to caring.”

Dedication Plaque
Moos Tower

In 1919, the State of Minnesota started licensing “dental nurses.”
committees or apply for national positions or externships. Leaders in the local chapter are elected and many attend national and regional meetings. Benefits include publications; life, health, and disability insurance programs; credit card program; etc.

**The American Dental Education Association** is open to faculty, dental students, dental hygiene students and individuals with an interest in dental education. Membership benefits include dental education advocacy, professional development opportunities, publications, workshops and conferences.

**The Student American Dental Hygienists’ Association** is a dental hygiene student’s first link to the profession. Members join the student chapter of the national association. Benefits include publications, health and insurance programs, legislative advocacy, etc. Activities include community outreach, lunch and learn sessions, and social activities.

**State Professional Organizations**

**Minnesota Dental Association:** Dental students belong to the Minnesota Student District Dental Society, which is the eighth district of the Minnesota Dental Association, the state affiliate of the American Dental Association.

Minnesota was the first state to extend membership privileges to dental students. This included participation on all Association committees and voting representation on its Board of Trustees and at policy-making sessions of its House of Delegates. Dental and dental hygiene students are also invited to attend the Association’s annual scientific meeting.

**Minnesota Dental Hygienists’ Association:** One student from each dental hygiene class is selected to serve as a voting student delegate to the annual session of the Minnesota Dental Hygienists’ Association.

**Fraternities and Honor Societies**

**Fraternities:** There are two professional dental fraternities at the University of Minnesota: Delta Sigma Delta and Psi Omega. These fraternities have undergraduate chapters in this country, as well as active international alumni chapters.

Professional fraternities enable dental students to develop close ties with their peers and alumni. After graduation, fraternity alumni organizations across the nation provide valuable professional and social contacts, expert advice and professional guidance.

Dental fraternities feature speakers, tours and forums, as well as social activities. Additional benefits include on-campus residence and/or parking.

**Honor societies:** Graduating dental students may be elected by the faculty to the Beta Beta Chapter of the national dental honor society, Omicron Kappa Upsilon. Graduating dental hygiene students may be elected to the Eta Chapter of the National Dental Hygiene Honor Society, Sigma Phi Alpha.

**Community Outreach Programs**

Any dental professional will say that “doing” dentistry is the best way to learn: Pre-clinical students work on typodonts (models), while more advanced students treat patients under supervision and mentoring by faculty.

But one of the School’s most popular programs offers learning experiences beyond those available in the classroom or clinic. The School’s community outreach program enables dental and dental hygiene students to refine clinical skills and develop a broad understanding of the health and social responsibilities they will have as dental professionals.
Students can participate in the following:

**Hibbing Community College Dental Clinic:** In 2002, the School of Dentistry launched its first regional dental clinic. Located 200 miles north of the Twin Cities on the campus of the Hibbing Community College, the clinic is a comprehensive care facility that provides real-life, community-based dental practice experience for student dentists. Dental students staff the clinic, usually working in two-week rotations, under supervision of a faculty member.

**Mobile Dental Unit:** In 2003, the School teamed with UCare (an area HMO) to turn a 37-foot Winnebago into a dental office on wheels. The three-chair clinic travels the state, making daily trips from the dental school to cities around the metro area and week-long trips to communities in greater Minnesota.

**Community clinics:** A number of off-campus programs help students define and refine their clinical skills and assist residents of Twin Cities communities with access to dental care. Some are single day clinics, while others are one- or multi-week experiences.

**Special Opportunities**

**Extramural Educational Program:** Extramural clinical experiences (beyond the outreach activities required in the curriculum) are available to students during the summer of their fourth year in the doctor of dental surgery program. These volunteer experiences broaden students’ clinical experience and enhance diversity in the School’s clinical training sites. Students are selected for these experiences based on completion of sufficient competency examinations for the faculty to be confident in their ability to operate effectively in meeting patient needs in a timely manner.

**Union Gospel Mission:** Students and faculty provide volunteer dental care for the homeless in the St. Paul clinic.

**International Exchange Opportunities:** The School has maintained an education exchange program for more than 20 years. Current exchange agreements are with the College of Dentistry in Århus, Denmark; the Universities of Greifswald and Heidelberg, Germany; the University of Bergen, Norway; and the University of Nijmegen, The Netherlands.

This program increases awareness of and appreciation for dentistry in a global context. Students experience a different culture, political system and lifestyle, and return with greater understanding, sensitivity and acceptance of differences in people, their customs and culture.

**Summer Research Fellowship:** Summer research scholarships are available to accepted students for the summer before they matriculate. Dental and dental hygiene students with an interest in research and postgraduate research training also can apply for fellowships. Research fellows are paired with a faculty mentor. During a 10-week period in the summer, they undertake a structured research program. First-time research fellows attend a weekly training seminar. The following spring, all summer fellows prepare a written research report and a poster (for presentations at local and regional student research meetings). Stipends are provided in the form of financial aid. For more application materials and information, go to [www.dentistry.umn.edu/research_fellowship](http://www.dentistry.umn.edu/research_fellowship).

*Average U.S. dental school investment in dental research is $2,955.*

*In 1927, admission to the D.D.S. program required two years of college.*
Dental hygienists practice in a variety of settings including private dental offices and clinics; health departments, hospitals and long-term care facilities; school districts or departments of education; dental, dental hygiene and dental assisting education programs; private business; correctional facilities; private and public centers for patients with special needs; and health maintenance organizations. A bachelor of science degree in dental hygiene provides the opportunity to serve as a commissioned officer in the U.S. Public Health Service.

The Program

The dental hygiene program was established in 1919 and is accredited by the Commission on Dental Accreditation. It is the only dental hygiene program in Minnesota that grants a baccalaureate degree and is affiliated with a school of dentistry.

The Division of Dental Hygiene offers two programs: 1) An entry-level program for those wishing to pursue a career in dental hygiene; and 2) A Degree Completion Program for graduates of accredited associate degree programs in dental hygiene. Graduates of both programs earn a baccalaureate (B.S.) degree.

The programs blend a solid dental hygiene clinical education with the biological, behavioral and social sciences, and liberal arts. A commitment to community and service, and to intellectual development and critical thinking is emphasized.

Tuition and Fees

For information on tuition, fees and estimated total expense, consult the Class Schedule or the estimated expense information provided by the Division of Dental Hygiene. The School provides all instruments and supplies. Students pay a usage fee.
Reciprocity and Resident Tuition
Application for reciprocity is separate from application for admission.

Qualified residents of Wisconsin, North Dakota, South Dakota and Manitoba who attend the University of Minnesota may apply for reciprocity privileges and pay tuition equal or comparable to Minnesota residency rates. Residents of Kansas, Michigan, Missouri and Nebraska may be eligible for reduced tuition at the University through the Midwest Student Exchange Program. For more information, call the University residency adviser at 612-625-6330 or go to http://onestop.umn.edu.

Admission
Applicants should have a genuine interest in human services and in promoting public health and welfare. A strong interest in the natural, social and behavioral sciences is encouraged.

A class is admitted each fall and admission is competitive. Applicants must complete the University of Minnesota’s high school preparation requirements prior to entry into the program. Documentation indicating completion of all requirements must be submitted to the Division of Dental Hygiene by August 15 of the year of proposed entry. The Division of Dental Hygiene sets its standards and requirements for admission.

Entry-level program requirements: The following courses or their equivalents must be completed in the College of Liberal Arts or its equivalent at another regionally accredited institution before entry (semester credits follow in parentheses). All courses must be taken on an A–F grading basis. Biology and chemistry will be considered outdated if taken more than five years before the time of application.

- Biol 1009—General Biology (4)
- Chem 1011—General Principles of Chemistry (4)
- EngC 1011 or 1013—University Writing and Critical Reading (4)
- FScN 1112—Principles of Nutrition (3)
- InMd 3001—Human Anatomy (3)
- Psy 1001—Introduction to Psychology (4)
- Soc 1001—Introduction to Sociology (3)
- Spch 1101—Introduction to Public Speaking (3)
- Phsl 3051—Human Physiology (4)**

Liberal education requirements*

* Students are encouraged to complete as many liberal education requirements as possible before entering the program.

**Beginning 2007, students will be required to take Stat 1001—Introduction to Statistics (3) in place of Phsl 3051.

Degree Completion Program requirements:
For information about the Degree Completion Program, contact the Division of Dental Hygiene.

Dental hygienists provide educational, clinical, research, administrative, consumer advocacy, change agent and therapeutic services.
English proficiency: Applicants who are not native English speakers must submit written evidence of a Test of English as a Foreign Language (TOEFL) score. The TOEFL is offered in computerized format. A TOEFL score of at least 79 is required. The TOEFL must have been administered within two years of the date of application. See p. 33 for registration information.

Application Procedure
Applications are accepted from December 1 to February 1 for entry the following fall. Requirements include:

• High school graduation;
• ACT, PSAT, or SAT scores;
• Transcripts of all high school and college courses;
• Evidence of plans to complete specified prerequisite requirements before entry;
• A minimum 2.00 GPA (cumulative, prerequisite and science coursework). However, a GPA well above a 2.00 is usually necessary to be admitted;
• Biology or chemistry, and composition, psychology and/or sociology grades must appear on the transcript at the time of application.

University of Minnesota students: Students already enrolled at the University apply by submitting an Application for Undergraduate Change of College to the One Stop Student Services Center, 200 Fraser Hall. Forms are available at the center (624-1111) and online at www.onestop.umn.edu/onestop/forms.html.

Other prospective students: Students not currently enrolled at the University of Minnesota may apply by submitting the Application for Undergraduate Admission at http://admissions.tc.umn.edu or to the University’s Office of Admissions.

Information for Accepted Applicants
Immunizations: Students are required to have a health clearance as a condition of enrollment and must complete and submit an Academic Health Center Immunization Record. The form must be returned for students to register for classes. For more information, go to the Boynton Health Service Web site at www.bhs.umn.edu/services/AHC.htm#AHC.

Criminal background check: Minnesota law requires that a person who provides services that involve direct contact with patients in health care facilities licensed by the Minnesota Department of Health have a background check conducted by the state. The background check covers a wide range of criminal offenses and agency-findings related to maltreatment of children or vulnerable adults. Individuals disqualified from having direct patient contact as a result of the background check may be determined ineligible for a degree in the program.

Leave of absence: A Leave of Absence Request must be submitted to the Director of Dental Hygiene. Leaves of absence are granted for up to one academic year only; students must complete the program requirements in effect at the time they re-enter the program.
Curriculum

The following courses must be completed to satisfy graduation requirements (semester credits follow in parentheses) and must be taken A–F unless otherwise noted. Dental hygiene students are also required to participate in one or more off-campus day and weeklong community outreach programs. See p. 10.

Sophomore Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 2111</td>
<td>Dental Anatomy 2</td>
</tr>
<tr>
<td>DH 2121</td>
<td>The Dental Hygiene Care Process: Clinical Application I 5</td>
</tr>
<tr>
<td>DH 2132</td>
<td>Head and Neck Anatomy 1</td>
</tr>
<tr>
<td>BioC 1001</td>
<td>Elementary Biochemistry 3</td>
</tr>
<tr>
<td>MicB 4001</td>
<td>Microorganisms and Disease 2</td>
</tr>
<tr>
<td>Liberal Education Requirements</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 2210</td>
<td>Oral Histology and Embryology 2</td>
</tr>
<tr>
<td>DH 2212</td>
<td>Dental Hygienist-Patient Relationship 2</td>
</tr>
<tr>
<td>DH 2221</td>
<td>Periodontology 3</td>
</tr>
<tr>
<td>DH 2222</td>
<td>The Dental Hygiene Care Process: Clinical Application II 3</td>
</tr>
<tr>
<td>DH 2231</td>
<td>Cariology 2</td>
</tr>
<tr>
<td>Phsl 3051</td>
<td>Human Physiology 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>May/Summer Session</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 2211</td>
<td>General and Oral Pathology 2</td>
</tr>
<tr>
<td>DH 2233</td>
<td>The Dental Hygiene Care Process: Clinical Application 1</td>
</tr>
<tr>
<td>DH 2235</td>
<td>Oral and Maxillofacial Radiology 0</td>
</tr>
<tr>
<td>DH 3134</td>
<td>Dental Hygiene Care for Pediatric Patients 1</td>
</tr>
</tbody>
</table>

Junior Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 3111</td>
<td>Biomaterials and Principles of Restorative Techniques I 4</td>
</tr>
<tr>
<td>DH 3123</td>
<td>The Dental Hygiene Care Process: Clinical Application III 4</td>
</tr>
<tr>
<td>DH 3126</td>
<td>Oral and Maxillofacial Radiology: Clinic I 0</td>
</tr>
<tr>
<td>DH 3131</td>
<td>Periodontology I Lecture 1</td>
</tr>
<tr>
<td>DH 3132</td>
<td>Applied Nutrition in Dental Hygiene Care 1</td>
</tr>
<tr>
<td>DH 3133</td>
<td>Pharmacology 2</td>
</tr>
<tr>
<td>DH 3135</td>
<td>Oral and Maxillofacial Radiology: Theory, Principles and Radiographic Analysis 2</td>
</tr>
</tbody>
</table>

Spring Semester

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 3221</td>
</tr>
<tr>
<td>DH 3224W</td>
</tr>
<tr>
<td>DH 3227</td>
</tr>
<tr>
<td>DH 3231W</td>
</tr>
<tr>
<td>DH 3235</td>
</tr>
<tr>
<td>PubH 3001</td>
</tr>
</tbody>
</table>

Senior Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 4125W</td>
<td>The Dental Hygiene Care Process: Clinical Application V 6</td>
</tr>
<tr>
<td>DH 4128</td>
<td>Oral and Maxillofacial Radiology: Clinic IV 3</td>
</tr>
<tr>
<td>DH 4131</td>
<td>Epidemiology, Prevention, Dental Public Health, and Community Outreach 3</td>
</tr>
<tr>
<td>DH 4132W</td>
<td>Ethics, Jurisprudence, and Principles of Practice 2</td>
</tr>
<tr>
<td>DH 4137</td>
<td>Patient Management (PCG) 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 4226</td>
<td>The Dental Hygiene Care Process: Clinical Application VI 5</td>
</tr>
<tr>
<td>DH 4229</td>
<td>Oral and Maxillofacial Radiology: Clinic IV 3</td>
</tr>
<tr>
<td>DH 4231</td>
<td>Periodontology II Lecture 1</td>
</tr>
<tr>
<td>DH 4232</td>
<td>Community Outreach 1</td>
</tr>
<tr>
<td>DH 4233</td>
<td>Legislative, Social, Economic, and Practice Factors in Oral Health 2</td>
</tr>
<tr>
<td>DH 4238</td>
<td>Patient Management (PCG) 1</td>
</tr>
</tbody>
</table>

The Division of Dental Hygiene retains the right to revise, add and/or delete any course or requirement. Students will complete requirements in effect at the time they enter/re-enter the program.

Student Support Program

The Division of Dental Hygiene monitors academic performance and provides tutoring and consultation as necessary. Counseling and advising are available through the Division, the University Counseling and Consulting Service and faculty.

All states require licensure of dental hygienists.

In 1953, the School’s dean initiates the first university-based dental assistant program in the U.S. It is discontinued in 1982 under pressure of budget reductions.
Dental Hygiene (DH)

DH 2111. Dental Anatomy. (2 cr; Prereq-DH student)
All deciduous/permanent teeth, including tooth form, function, and relationship to oral health. Calcification, eruption, exfoliation patterns. Ideal static occlusion, dental terminology, tooth annotation systems. Lab includes identification/annotation of teeth.

DH 2121. The Dental Hygiene Care Process Clinical Application I. (5 cr; A-F only. Prereq-DH student)
Dental hygiene care process, assessment principles related to medical and oral health status, dental hygiene clinical procedures, and development of instrumentation skills.

DH 2132. Head and Neck Anatomy. (1 cr; A-F only. Prereq-DH student) Anatomical structures of head/neck as they relate to practice of dental hygiene.

DH 2191. Independent Study. (0-6 cr [max 6 cr], Prereq-DH student)
Individually arranged study, instruction, or research with faculty to meet student needs/interests.

DH 2210. General and Oral Pathology. (2 cr; A-F only. Prereq-DH student)


DH 2212. Dental Hygienist-Patient Relationship. (2 cr; A-F only. Prereq-DH student) Use of clinical research and evidence-based clinical decision making when communicating scientifically based clinical therapy and treatment modalities. Promotion of active participation by patient in clinical decision making.


DH 2231. Cariology. (2 cr; A-F only, Prereq-DH student)
Dental caries. Etiology, pathology, and prevention.

DH 2233. Dental Hygiene Care Process: Clinical Application. (1 cr; S-N only. Prereq-DH student) Clinical experience in dental hygiene patient care.


DH 3123. The Dental Hygiene Care Process Clinical Application III. (4 cr Prereq-DH student) Dental hygiene treatment planning, alternative instruments, and advanced skills related to implementation of dental hygiene care. Clinical experience.

DH 3126. Oral and Maxillofacial Radiology Clinic I. (0 cr; A-F only. Prereq-DH student) Exposing patient radiographs, interpretation, panoramic/extraoral technique, quality assurance procedures.


DH 3133. Pharmacology. (2 cr; A-F only. Prereq-DH student) Principles of pharmacology, physical/chemical properties of drugs, modes of administration, therapeutic/adverse effects, drug actions/interactions.

DH 3134. Dental Hygiene Care for Pediatric Patients. (1 cr; A-F only. Prereq-DH student) Knowledge, skills, and attitudes required for providing dental hygiene care for pediatric patients.


DH 3136. Patient Care Group I (PCGs). (1 cr; A-F only) Small-group, cooperative learning integrating dental and dental hygiene students. Application of patient care skills taught in other courses. Focuses on communication skills, patient management, team work, collegiality, and practice philosophy necessary for practice of dental hygiene.

DH 3191. Independent Study. (0 cr; A-F only) Clinical experience in dental hygiene care.

DH 3203. Dental Hygiene Care for Special Needs Patients I. (2 cr; A-F only) Knowledge, skills, and attitudes required for providing dental hygiene care for pediatric/orthodontic and geriatric patients and individuals with disabilities.


DH 3227. Oral and Maxillofacial Radiology Clinic II. (0 cr; A-F only. Prereq-DH student)
Exposing patient radiographs, interpretation, panoramic/extraoral technique, and quality assurance procedures.

DH 3231. Research Methods in Dental Hygiene. (3 cr; A-F only. Prereq-DH student)
Development of skills in scientific method and analyzing research findings; emphasis on types of research, problem selection, hypothesis writing, research planning and design, data collection and measuring techniques, analysis and interpretation of data, and writing the research proposal.

DH 3235. Dental Hygiene Care for the Geriatric Patient and the Patient With Special Needs. (2 cr; A-F only. Prereq-DH student)
Knowledge, skills, and attitudes required for providing dental hygiene care for geriatric patients and patients with special needs.

DH 4125. The Dental Hygiene Care Process Clinical Application V. (1-7 cr [max 7 cr]; A-F only. Prereq-DH student)
Adapt dental hygiene care process to meet preventive/treatment needs of traditional and special needs patients. Analyze patient preventive/treatment need through case presentation. Community service, cultural diversity, family violence issues. New products, techniques, research.

DH 4128. Oral and Maxillofacial Radiology Clinic III. (0 cr; A-F only. Prereq-DH student)
Exposing patient radiographs, interpretation, panoramic/extraoral technique, quality assurance procedures.

DH 4131. Epidemiology, Prevention, Dental Public Health, and Community Outreach. (3 cr; A-F only. §DENT 5401. Prereq-DH student)

DH 4132. Ethics, Jurisprudence, and Principles of Practice. (2 cr; A-F only. Prereq-DH student)
Career planning, team building, employment seeking, jurisprudence, and ethical decision making.

DH 4191. Independent Study. (0-6 cr [max 6 cr.]. Prereq-DH student)
Individually arranged study, instruction, or research with faculty to meet student needs/interests.


DH 4226. Dental Hygiene Care Process Clinical Application VI. (1-5 cr [max 5 cr]. A-F only. Prereq-DH student)

DH 4227. Advanced Dental Hygiene Clinical Experience I. (0-6 cr [max 6 cr]. Prereq-DH student)
Development of skills in sonic/ultrasonic scaling/assessment, treatment planning, documentation, implementation/evaluation of dental hygiene care.

DH 4228. Advanced Dental Hygiene Clinical Experience II. (0-6 cr [max 6 cr]. Prereq-DH student)
Development of skills in sonic/ultrasonic scaling/assessment, treatment planning, documentation, implementation/evaluation of dental hygiene care.

DH 4229. Oral and Maxillofacial Radiology Clinic IV. (3 cr; A-F only. Prereq-DH student)
Exposing patient radiographs, interpretation, panoramic/extraoral technique, quality assurance procedures.

DH 4231. Periodontology Lecture. (1 cr; A-F only. §DENT 6613. Prereq-DH student)
Clinical procedures associated with surgical phase of periodontal therapy. Evaluation of periodontal treatment, maintenance phase, and relationship between periodontics and other dentistry disciplines. Roles of clinical research in periodontics.

DH 4232. Community Outreach. (1 cr; §S-N only. Prereq-DH student)
Dental hygiene education in various community settings.

DH 4233. Legislative, Social, Economic, and Practice Factors in Oral Health. (2 cr; A-F only. Prereq-DH student)
Current status/trends in dentistry in relation to health care promotion, regulation, and delivery and political/legislative process.

DH 4241. Extramural Clinical Dental Hygiene. (0-6 cr [max 6 cr]; A-F only. Prereq-DH student)
Students participate in educational/clinical experiences with diverse patient populations in community outreach clinics.

DH 4250. Dental Hygiene Community Outreach Elective. (0-8 cr [max 8 cr]; S-N only. Prereq-DH student)
Individually arranged dental hygiene clinical experience in community outreach clinics.

DH 4292. Curriculum Development in Dental Hygiene. (3 cr)

DH 4293. Course Development in Dental Hygiene. (0-4 cr [max 4 cr]; A-F only)
Principles/practice of course development, testing, and evaluation.

DH 4294. Directed Research. (0-4 cr [max 4 cr])
Critical literature review and/or individual empirical research project leading to a written report, and/or intensive observation/participation in the clinical research center.

DH 4295. Instructional Methods in Dental Hygiene Education. (0-4 cr [max 4 cr]; A-F only)
Application of principles of learning, learning styles, teaching styles, and instructional methods. Microteaching of selected instructional skills.

DH 4296. Issues in Dental Hygiene. (0-3 cr [max 3 cr]; A-F only)

DH 4297. Dental Hygiene Education: Supervised Teaching. (1-4 cr [max 4 cr]; A-F only)
Observation/participation in supervised teaching experience in dental hygiene education.

DH 4298. Dental Hygiene Process of Care: Clinical Application. (1-4 cr [max 4 cr])
Clinical care of patients.

Course Symbols

The comma, used in prerequisite listings, means “and.”

Approval of the instructor is required for registration. Credit will not be granted if credit has been received for the course listed after this symbol.

A prerequisite course listed by number only (e.g., prereq 5246) is in the same department as the course being described.

The clinic provides diagnostic and comprehensive treatment-planning services for people with repaired cleft lip and palate and other maxillofacial anomalies.
Scholarships and Awards

The following awards are presented to dental hygiene students during the annual Honors Day and Senior Recognition Reception programs.

Louise C. Ball Scholarship: For selected juniors and seniors who are in good academic standing and have established financial need.

Gordon & Marie Hackborn Scholarship: For a selected sophomore in good academic standing who has had a personal or professional challenge while pursuing his/her academic goals in dental hygiene.

Ione M. Jackson Scholarship: Established to honor a former University of Minnesota program director, the scholarship is awarded to a qualified senior who wishes to become a dental hygiene educator.

Shirley Burgen Lichtwardt Memorial Scholarship: For selected juniors and seniors who are in good academic standing and have established financial need.

Kathleen J. Newell Outstanding Dental Hygiene Student Award: For selected juniors and seniors who exhibit scholarship and leadership.

Sigma Phi Alpha Eta Chapter Membership: National Dental Hygiene Honor Society established to recognize and honor excellence in scholarship, service, and character among graduating dental hygiene students. A maximum of 10 percent of each graduating class is selected for membership.

Sigma Phi Alpha Award: Awarded to the sophomore, junior and senior who maintains the highest GPA.

Procter & Gamble Excellence in Dental Hygiene Award: Awarded to a selected junior who exhibits scholarship, leadership, service and contribution to the dental hygiene profession.

Naomi Rhode Dental Hygienist-Patient Relationship Award: Awarded to a selected senior who exhibits the most interest and skill in the dental hygienist-patient relationship.

Metro Dental Fellow Student Award: Awarded to the senior student (selected by junior students) and junior student (selected by sophomore students) who each exhibits a high level of interpersonal communication skills, is involved in other activities, and serves as a mentor to junior and sophomore students.

Park Dental Service Excellence Award: Awarded to a sophomore, junior, and senior student in recognition of commitment to quality patient care and service to the community and for being a true professional who provides excellent patient service, education, and relationship building.
Special Interest/Achievement in Community Dentistry and Dental Public Health: Awarded to a senior student for outstanding achievement in community dentistry.

Student Total Achievement Recognition Award (STAR): Awarded to a senior student who demonstrates true dedication to the dental hygiene profession, exhibits compassion in patient care, displays enthusiasm for community service, and enjoys the role of the dental hygienist.

Donna Aker-Dehn/Kathleen J. Newell Scholarship: Awarded to a dental hygiene student who demonstrates academic progress.

Graduation Requirements
The bachelor’s degree will be recommended for students who earn a minimum GPA of 2.00 and have completed all required work and credits specified by the curriculum.

Students with a minimum GPA of 3.75 in upper division courses are granted a degree with distinction. Students with a minimum GPA of 3.90 in upper division courses are granted a degree with high distinction.

Licensure
Dental hygienists practice in accordance with the requirements of individual state dental practice acts. Successful completion of a written National Board Dental Hygiene Examination and a clinical examination are required for licensure in Minnesota. Many states require continuing education for license renewal.

Liberal Education Requirements
The following requirements apply to undergraduate students enrolling at the Twin Cities campus.

The Diversified Core Curriculum
Physical and Biological Sciences: At least 8 credits including one course with lab or field experience in the physical sciences and one course with a lab or field experience in the biological sciences.

Social Sciences/Humanities: A minimum of at least one 5 credits distributed as follows:
- at least 6 credits in the social sciences
- at least 3 credits in historical perspectives
- at least 6 credits in the arts and humanities, including one course in literature and one course in other humanities

Mathematical Thinking: A minimum of one course totaling at least 3 credits.

Designated Themes: At least 3 credits in each of the following: cultural diversity, international perspectives, environment, and citizenship and public ethics.

Writing Intensive: All students must complete one first-year writing course. Four writing-intensive courses are taken during the dental hygiene curriculum. The first-year writing course and the four writing-intensive courses fulfill the writing-intensive requirement.

Minnesota Transfer Curriculum: Students who have completed the Minnesota Transfer Curriculum at any participating Minnesota college or university fulfill the University’s Twin Cities campus liberal education requirements. However, students still need to complete a portion of the writing requirements. For more information on transferring credits, contact the University of Minnesota Office of Admissions at 612-625-2008 or go to admissions.tc.umn.edu.

Students start free dental clinic at Union Gospel Mission in St. Paul.

In the same year, the Instructional Media Resource Center was formed to teach students how to make “verbal presentation and interrelate better with patients, office personnel and community representatives.”
The Program

The Doctor of Dental Surgery (D.D.S.) degree carries with it the full authority of the University of Minnesota School of Dentistry. The D.D.S. is a broad degree that prepares graduates to practice in all disciplines of the dental profession: dental public health, endodontics, oral and maxillofacial pathology, oral and maxillofacial surgery, orthodontics, pediatric dentistry, periodontics, prosthodontics, and oral and maxillofacial radiology.

Admission: General Information

A first-year class is admitted each fall.

Applicants should have a sound academic and broad liberal arts college education.

Preference for admissions is given to Minnesota residents. However, nonresidents are strongly encouraged to apply. For more information, contact the Office of Admissions.

Diversity Policy: The School of Dentistry seeks to foster a diverse student body of thought, interest, background, and intellect. Diversity enhances the educational experience of all students and better prepares our graduates to practice dentistry in today’s world. The D.D.S. Admissions Committee considers the following factors:

a. geographic diversity
b. first generation college student
c. financial need
d. disadvantaged educational background
e. racial and ethnic diversity
f. evidence of outstanding leadership
g. special talents
h. high academic potential
i. unique work or service experience
j. community involvement
k. experience or interest in research or teaching
l. interest in providing dental services to underserved populations

The School provides all dental instruments and supplies. Students pay a usage fee. Application for reciprocity is separate from application for admission.

**English Proficiency:** Every applicant who is not a native English speaker must submit an official score report from a Test of English as a Foreign Language (TOEFL). This requirement applies regardless of the applicant’s citizenship or high school or college attended. The TOEFL must have been administered within the last two years of the date of application. Official score reports must be received by the School of Dentistry by December 1 of the year prior to entry. TOEFL is administered via the internet. For information about minimum scores required, and a definition of who is required to submit a test, go to: www.dentistry.umn.edu. To schedule a test: contact the agency that handles TOEFL registration in your country or go to www.toefl.org.

**Dental Admission Test (DAT):** Applicants must take the Dental Admission Test (DAT) within three years of the AADSAS application (see p. 25). The DAT test is prepared by the American Dental Association. This standardized exam consists of subtests in biology, general chemistry, organic chemistry, reading comprehension, quantitative reasoning and perceptual ability. Applicants should score at or above the national average.

The DAT is administered by computer at Prometric Testing Centers throughout the United States and in some foreign countries. Applicants are encouraged to study test preparation materials. The testing service will forward scores to dental schools identified by the applicant. The D.D.S. Admissions Committee strongly encourages candidates applying to the School of Dentistry to take the exam at least one year prior to entering dental school so that scores can be submitted by September 1 or earlier. Deadline for receiving official score reports: December 1 (for entry the following summer). For information about the test, testing centers, registration and study materials, go to www.ada.org/prof/ed/testing/DAT.

**Program for Advanced Standing Students (PASS):** Dentists who are graduates of dental schools outside of the United States and Canada seeking to practice dentistry in the United States may apply for admission to the Program for Advanced Standing Students (PASS). For information and application materials, go to www.dentistry.umn.edu/programs_admissions.

**Course and Credit Requirements**

At least 87 semester credits or 130 quarter credits of liberal arts courses from an accredited U.S. or Canadian college or university are required. A maximum of 64 semester credits from community or junior colleges will be accepted (one semester credit equals 1½ quarter credits).
Required courses must be completed by the end of spring term for entry the following fall and should include the following minimum requirements:

- **English**—8 semester credits. Two composition and one speech course preferred; or one composition course, one speech course, and one additional course in either literature or humanities with a composition component.
- **General Biology or Zoology**—8 semester credits. General zoology alone is acceptable but not preferred.
- **Physics**—8 semester credits. Complete course series required.
- **General Principles of Chemistry**—8 semester credits. Complete course series required.
- **Organic Chemistry**—8 semester credits. Course content must include study of both the aliphatic and aromatic series. One-semester courses generally do not have sufficient depth to be acceptable.
- **Biochemistry**—3 semester credits. Course must show organic chemistry as a prerequisite. Survey courses generally do not have sufficient depth to be acceptable. (Only lecture is required.)
- **Math**—3 semester credits in one of the following: college algebra, pre-calculus, computer science or statistics.
- **Applied Human Psychology**—3 semester credits in general human psychology, child and adolescent human psychology or business psychology.

Sciences must include both lecture and lab instruction. Courses in biology, chemistry and physics may be considered outdated if taken more than five years before the time of application.

Although 87 semester credits are required, the majority of first-year dental students complete a bachelor degree.

**Evaluation of international coursework:** The School will consider international coursework from an accredited college or university if supplied with official or certified transcripts, mark sheets and degree statements from all institutions attended. Applicants must also complete at least 30 semester credits (or 45 quarter credits) of prerequisite courses or upper division science courses from an officially accredited U.S. or Canadian college or university prior to matriculation. English courses taken from an international college or university do not fulfill the School of Dentistry English requirement for admission.

**Grade point average (GPA):** High school credentials are not reviewed. GPA (overall, required courses and science) is viewed in terms of consistency and improvement. The quality of coursework and challenge per term are also considered. An overall GPA of at least 2.70 is required; however, acceptance is competitive and a higher GPA is usually necessary. Applicants are required to provide written documentation of academic difficulties (e.g., “I,” “W,” “D” and “F” grades).

**Recommended elective coursework:** Electives should reflect a broad, liberal arts education. Competitive applicants will also take a combination of the following...
preferred electives: art (3-D drawing or sculpture), cell biology, histology, human anatomy, microbiology, physiology, genetics, immunology and statistics. These requirements are especially important for applicants who have completed only the minimum credits required for admittance. Additional courses can be chosen from among those required for a bachelor degree or those of interest to the student, such as courses in sciences, humanities, social sciences or business.

**Technical Standards for Entry**

The School of Dentistry is mindful of the unique nature of the dental curriculum. Applicants must possess the skills and abilities that will allow them to successfully complete the course of study and receive the full benefit of the education. In the process, the student is required to direct or perform treatment on patients of the University of Minnesota Dental Clinics and its affiliates. This includes the completion of treatment safely and within an acceptable amount of time. With this in mind, students must be able to meet the following technical standards with or without reasonable accommodation:

**Motor Skills**

**General:** Candidates and students must have sufficient motor functions to execute movements reasonably required to provide general care and treatment to patients within an acceptable amount of time.

**Specific:** A candidate must possess the motor skills necessary to directly perform palpation, percussion, auscultation and other diagnostic maneuvers, basic laboratory tests and diagnostic procedures. Such actions require coordination of gross and fine muscular movements, equilibrium, and functional uses of the senses of touch and vision.

**General:** A candidate must be able to perform basic life support (including CPR), position disabled patients, physically restrain adults who lack motor control, and position and reposition self around patients. A candidate must be able to operate controls utilizing fine movements, operate high or low speed dental instruments within less than one millimeter, and utilize hand instruments (including scalpels for surgical procedures).

**Sensory/Observation**

**General:** A candidate must be able to acquire a defined level of required information as presented through demonstrations and experiences in the basic and dental sciences.

**Specific:** This includes, but is not limited to, information conveyed through physiologic and pharmacological demonstrations and through microbiological cultures and microscopic images of microorganisms and tissues in normal and pathologic states. A candidate must be able to acquire information from written documents and to visualize information presented in images from paper, films, slides, video and computer. A candidate must be able to interpret radiographs (x-rays) and other graphic images, with or without the use of assistive devices. A candidate must have functional use of visual, auditory and somatic sensation while being enhanced by the functional use of sensory modalities.

**General:** A candidate must be able to observe a patient accurately, at a distance and close at hand, and observe and appreciate non-verbal communications when performing dental operations or administering medications.

**Specific:** A candidate must be able to perform visual and tactile dental examinations and treatment, including use of visual acuity, accommodation, and vision to discern the differences and variations in color, shape and general appearance between normal and abnormal, soft and hard tissues. Use of tactile senses may be by direct palpation or indirect through instrumentation. A candidate must also possess the visual acuity to read charts, records, small print and handwritten notation, and distinguish variations in colors intra and extra orally.

---

Spearheaded by a student, School receives grant to teach students how to communicate and treat people who are hearing impaired.

In 1986, students and faculty travel to Jamaica to treat patients. In the early 1980s, Jamaican children had one of the highest rates of dental decay in the world.
Communication

General: A candidate must be able to communicate effectively and sensitively with patients and/or guardian; convey or exchange information at a level allowing development of a health history; identify problems presented; explain alternative solutions; and give directions during treatment and post-treatment. For effective patient treatment, the candidate must be able to communicate effectively and efficiently with all members of the health care team, orally and in writing.

Specific: A candidate must have sufficient facility with English to retrieve information from literature, computerized databases and lectures, to communicate concepts on written exams and patient charts; elicit patient backgrounds; describe patient changes in moods, activity and posture; and coordinate patient care with all members of the health care team.

Cognitive

General: A candidate must be able to measure, calculate, reason, analyze, integrate, and synthesize.

Specific: A candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem solving, a critical skill demanded of a dentist, requires all of these intellectual abilities. A candidate must be able to perform these problem-solving skills in a timely fashion for effective patient treatment.

Behavioral

General: A candidate must possess the emotional health required for full utilization of his or her intellectual abilities, the exercise of good judgment, maintenance of patient confidentiality, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients.

Specific: A candidate recognizes the curriculum is physically, mentally and emotionally taxing. He/she must be able to tolerate demanding workloads, to include functioning effectively under stress, adapting to changing environments, displaying flexibility and learning to function in the face of uncertainties inherent in the clinical problems of patients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admission and educational processes. A candidate must also be able to manage apprehensive patients with a range of moods and behaviors in a tactful, congenial, personal manner so as not to alienate or antagonize them. A candidate must reasonably be expected to accept criticism and respond by appropriate modification of behavior.

The skills and abilities described above are required to successfully complete the School’s competencies needed for graduation. These competencies are specified at www.dentistry.umn.edu.

You cannot be healthy without oral health. Oral disease affects our ability to eat, the foods we choose, how we look and the way we communicate. It affects our ability to work at home, at school and on the job.
Late 1980s

School alumnus co-develops a prototype sonic toothbrush.

By 2000, more than 7 million Sonicare toothbrushes have been sold worldwide.

Early Admission Program

An early admission program is available for prospective applicants. To be considered, applicants must complete at least one year of college, including science coursework. All applicants must submit an Early Admissions Application. Application deadline: July 15.

D.D.S. Early Admission Program eligibility criteria:

- U.S. citizen or permanent resident (with preference given to Minnesota residents);
- Completed basic course series, including lectures and labs, in biology, general and organic chemistry;
- Overall GPA of ≥3.40 (calculated without reference to +/- grades);
- Science GPA (includes math/science courses) of ≥3.20 (calculated without reference to +/- grades);
- Meet the standards of the Criteria for D.D.S. Admissions Selections (see p. 27);
- Have observed in a general dental practice, outside of a family member’s practice, for at least 15 hours;
- (If non-native speaker of English) a report showing passing scores on the TOEFL exam;
- DAT scores. Applicants must score at or above the national average in each subtest. Applicants may take the DAT only once as an early admissions applicant.

Applicants must submit the following information: an early-admission application; current transcripts from all institutions attending/attended; a list of courses the applicant plans to take before matriculation; DAT scores; and TOEFL scores (if applicable).

Applicants must demonstrate an interest in and commitment to attending only the University of Minnesota School of Dentistry. Applicant must meet with the director of Admissions at the School of Dentistry after completing the basic series in biology and general and organic chemistry (on or after January 15). A member of the D.D.S. Admissions Committee must review and approve the decision to admit applicant to the Early Admission Program.

Preference will be given to Early Admissions applicants who will have completed a bachelor degree or four years of postsecondary education prior to entering dental school. Applications for the Early Admission Program are considered on a rolling admissions basis. For application and additional information, contact the Office of Admissions (e-mail: ddsapply@umn.edu).

Application Process and Selection Criteria

Applying to dental school: An application to dental school is a commitment of time, effort and resources. Admission is based upon specific selection criteria. The competitive nature of the applicant pool is reviewed according to a rolling admissions process. Two application forms are required:

AADSAS application: All applicants (including re-applicants) must apply through the Associated American Dental Schools Application Service (AADSAS), a centralized application service sponsored by the American Dental Education Association. AADSAS serves as an information clearinghouse only. For AADSAS application materials and requirements, go to: www.ADEA.org/AADSAS.

Applicants must complete an online application between May 15 and December 1 of the year prior to matriculation. However, applicants are encouraged to complete and submit application materials as early as September 1. Applicants are required to submit three strong letters of recommendation. The University of Minnesota requires that two of those letters be from science faculty and the third from an employer. Students must also submit official transcripts from all colleges/universities attended and DAT scores.

AADSAS will forward application information in a standardized format to the dental schools identified by the applicant. Note: AADSAS takes four–six weeks to process and mail application materials.
The demands before, during and after dental school are many, but the rewards will be even greater.

University of Minnesota supplemental application: Upon completion of the AADSAS application, candidates must submit the University of Minnesota School of Dentistry Supplemental Application (available online at www.dentistry.umn.edu). Supplemental application materials must be postmarked January 1 or earlier.

Applicants with foreign coursework must submit an official transcript, along with a certified translation, prior to further consideration.

In addition to materials submitted to AADSAS, applicants are asked to provide (1) a $60 processing fee; (2) an explanation of gaps in learning and/or academic difficulties (e.g., more than one incomplete or withdrawal per academic year); (3) a 2” x 2” passport photograph; and (4) other information for review by the D.D.S. Admissions Committee, including but not limited to a personal statement documenting the applicant’s contribution to diversity (see p. 20), social service experience, manual dexterity competence and grasp of spacial relationships (see p. 23).

Applicants are also required to observe and participate in patient care experiences in a general dentistry practice. Additional observation experience in a specialty practice is also welcome. At least 30 hours of observation in practice is required.

For initial screening, the School’s D.D.S. Admissions Committee will accept copies of all transcripts submitted to AADSAS. (Transcripts must identify exemptions or advanced courses with fewer credits, which will be individually evaluated.) Grades for required courses based on a satisfactory/no-credit system are rarely accepted. Applicants may submit a maximum percentage of S credits in elective courses as follows: 10 percent of the minimum total credits for three-year students; 15 percent of the minimum total credits for four-year students.

The School’s Admissions Committee reviews only completed applications.

Re-applicants (only): Re-applicants submit the same materials described above. However, the School of Dentistry requires re-applicants provide three new or updated letters of recommendation.

Invitations for an interview/visit: Invitations are extended to candidates whose application materials are the most competitive. Applicants with ties to the state of Minnesota and strong overall and science GPAs are given priority consideration. Applications of candidates not referred for an interview will be reviewed again by a member of the D.D.S. Admissions Committee. A committee member will make the final decision about whether to schedule the applicant for an interview.

Interview: A personal interview is required. Interviews allow the admissions committee to gain further information on the following attributes that contribute to a student’s success in the program and career: communication skills, maturity, motivation for dentistry, responsibility, social awareness and empathy.

Selection criteria: The D.D.S. Admissions Committee reviews applications to determine their competitiveness and ensure that all qualified applicants receive individualized consideration throughout the admissions process. The Admissions Committee includes students, representatives from the School of Dentistry’s pre-clinical, clinical and research faculty, and the director of admissions. The committee is chaired by the assistant dean for admissions. The Admissions Committee will determine which candidates will be admitted; a quorum vote is needed for a decision.

The earliest notification of acceptance is December 1. The entering class is typically filled by March 1. An alternate list is maintained.
Criteria for admissions selection: Applicants will be evaluated on quality of college performance; completion of required courses; elective coursework; DAT scores; orientation to dentistry statement; residency status; personal interest statement; personal interview; letters of recommendation; demonstrated interested in the University of Minnesota School of Dentistry; contribution to diversity; personal service; dexterity experiences; and evaluation of foreign coursework (if applicable).

Preference is given to Minnesota residents. Applicants from other states are also strongly encouraged to apply.

Information for Accepted Applicants

Official transcripts: Upon acceptance and prior to matriculation, official transcripts must be sent directly to the School of Dentistry from each undergraduate and graduate institution attended, and must verify sufficient credits and correct courses. Basic science coursework that is older than five years may be considered obsolete.

Immunizations: Students are required to have a health clearance as a condition of enrollment and must complete and submit an Academic Health Center Immunization Record form. The form must be returned for students to register for classes. For more information, go to the Boynton Health Service Web site at www.bhs.umn.edu/services/AHC.htm#AHC.

Criminal background check: Minnesota law requires that a person who provides services involving direct contact with patients in health care facilities licensed by the Minnesota Department of Health have a state-conducted background check, which covers a wide range of criminal offenses and agency-findings related to maltreatment of children or vulnerable adults. Individuals disqualified from having direct patient contact as a result of the background check may be determined ineligible for a degree in these programs.

Community outreach: Participation in community-based clinical experiences of from two to six weeks is required.

Leave of absence policy: Requests for a leave of absence not to exceed one year will be considered on an individual basis in response to student health, family, military or personal obligations. Students must be in good academic standing (not on scholastic probation and with no pending unsatisfactory grades). To apply for a leave of absence, call the Office of Academic Affairs at 612-625-9945.

Student Affairs Support Program: Student performance is reviewed frequently, and academic assistance is recommended and provided for those in need. Dental students serve as tutors. The Student Affairs Support Program promotes student study groups, a student mentorship program and consultation with faculty.

International applicants: International applicants who have been accepted must also guarantee sufficient funds to meet all their educational and personal expenses for the duration of their F-1 status at the University of Minnesota.

Scholarships and Awards

The School provides scholarships and awards to entering students based upon a holistic review of their credentials during the admissions review process. Current dental students also receive recognition for their accomplishments while pursuing their dental degrees. The School provides merit scholarships to students based upon their academic achievements, along with awards based upon clinical skill, accomplishments in research, and leadership and service to the School and the community.

Evaluation of Student Performance

Student performance is evaluated through written, oral and practical examinations, observation of clinical performance, and course assignments. Students must exercise their

There’s a way to sit, hold instruments and position yourself around a patient that provides the best field of vision and instrument control, and the greatest dentist and patient comfort.

School receives $2.5 million federal grant to establish Oral Health Clinical Research Center.

Research studies cover many subjects, ranging from new treatments and trends to alternative dental materials and toothpaste.
clinical responsibilities with discretion and display concern for the dignity and importance of patients. Students must also demonstrate competency in 26 areas, including patient care (assessment, diagnosis and treatment planning and establishment and maintenance of oral health); communication and interpersonal skills; professionalism; informatics and critical thinking; practice management; and health promotion. For more about “Competencies for the General Dentist,” go to www.dentistry.umn.edu/programs_admissions/DDS.

Scholastic standing committees review each student’s grades and course progress at the end of each semester, evaluate achievement and personal conduct, and make recommendations to the Office of Academic Affairs on a student’s status and promotion. Students are expected to learn professional behaviors outlined in the student conduct code (see the School’s Student Handbook) and may be dismissed from school for disciplinary or scholastic reasons.

Retention and promotion: A, A-, B+, B, B-, C+, C, C-, D+, D and S are passing grades. F, N and I are not passing grades. Students who receive I grades must arrange to complete the coursework. After one term, an I grade may be changed to an F at the discretion of the faculty.

A 2.00 GPA is required for promotion between academic years; a passing grade is required on all prerequisite coursework before students are permitted to begin patient care. For more information on grading policies, go to the School’s Web site at www.dentistry.umn.edu or refer to the Student Handbook.

Graduation Requirements
Candidates for the doctor of dental surgery (D.D.S.) degree must have

- Complied with the rules and regulations of the School of Dentistry and the University of Minnesota
- Demonstrated sound moral character
- Received a passing grade in all required courses
- Completed all clinical competency evaluations
- Completed all outreach requirements
- Completed treatment of their clinical patients
- Completed full-time clinic attendance for a minimum of five semesters
- Returned all equipment and supplies assigned for their use
- Earned a GPA of at least 2.00
- Discharged all financial obligations to the University
- Been recommended by School of Dentistry faculty for the degree

Licensure and Placement
Dental licensure requirements vary depending upon the state in which you practice, but there are three common requirements: an educational requirement, a written exam and a clinical exam. Graduation from an accredited dental school fulfills the educational requirement.

Written examinations: All 53 licensing jurisdictions in the United States require both parts of the written “National Board Dental Examination.”

Clinical licensure examinations: All states require a clinical board examination. Although some states offer their own examinations, most participate in one of four regional boards. Students may take any licensure examination appropriate to the state in which they choose to practice. In Canada, the National Dental Examining Board of Canada (NDEB) certifies dentists. For information, go to www.ndeb.ca.

Reentry Program for Dentists
Dentists who take time out from their professional careers can update their information, clinical or technological skills before returning to practice.

Dentists may enroll as adult special students in selected general dental practice courses. Special general dentistry clinical mentorships can also be arranged as needed. For more information, contact the Office of Student Affairs.

Our students are professional leaders. University of Minnesota dental students have held the highest positions of leadership in the American Student Dental Association (ASDA).
Community outreach programs are an important part of our educational and service missions.

School faculty develops 3D Virtual Dental Patient.

In the same year, a School professor receives the international Premio Phoenix Verdi Award in Genetics.
Summer Session
Dent 5201 Pain and Anxiety Control 2
Dent 5322 Applied Dental Biomaterials 2
Dent 5501 Pediatric Dentistry Pre-Clinic 2
Dent 5701 Introduction to Endodontics Lecture and Laboratory 4
Dent 5911 Introduction to Clinical Implant Dentistry Lecture 2
Dent 5912 Introduction to Clinical Implant Dentistry Laboratory 2
Dent 6441 Treatment Planning & Patient Care Clinic (only) 1 or 5
Dent 6330 Summer Research (elective) 2
Subtotal credits 17 or 21

Fall Semester
Dent 6111 Oral Radiology Clinic 0
Dent 6122 Physical Evaluation II 3
Dent 6131 Oral Medicine/Diagnosis Clinic I 1
Dent 6202 Oral Surgery I 1
Dent 6413 Professional Problem Solving 0
Dent 6431 Patient Management III 1
Dent 6442 Treatment Planning Clinic 1
Dent 6510 Clinical Pediatric Dentistry* 5
Dent 6521 Orthodontics I 2
Dent 6621 Periodontology Clinic 2
Dent 6806 Operative Dentistry IV 2
Dent 6811 Operative Dentistry Clinic 4
Dent 6912 Fixed Prosthodontics Clinic I 5
Dent 6921 Removable Prosthodontics Clinic I 5
Subtotal Credits 32

Spring Semester
Dent 6112 Oral Radiology Clinic 0
Dent 6132 Oral Medicine/Diagnosis Clinic II 1
Dent 6203 Oral Surgery II 1
Dent 6414 Professional Problem Solving 0
Dent 6421 Management & Supervision of a Dental Practice 3
Dent 6432 Patient Management III 1
Dent 6443 Treatment Planning Clinic II 1
Dent 6451 Dental Auxiliary Utilization Clinic (DAU) 0
Dent 6510 Clinical Pediatric Dentistry* 5
Dent 6522 Orthodontics II 2
Dent 6613 Periodontology III Lecture 1
Dent 6622 Periodontology Clinic 2
Dent 6812 Operative Dentistry Clinic 4
Dent 6911 Prosthodontics I 2
Dent 6913 Fixed Prosthodontics Clinic II 5
Dent 6922 Removable Prosthodontics Clinic II 5
Subtotal Credits 33

Fourth Year: More advanced clinical training with exposure to advanced techniques and alternative treatments.

Summer Session
Dent 6113 Oral Radiology Clinic 2
Dent 6133 Oral Medicine/Diagnosis Clinic III 1
Dent 6205 Role of Dentistry in the Hospital Setting 1
Dent 6221 Oral and Maxillofacial Surgery Clinic Rotation 2
Dent 6401 Patient Care: Special Issues 2
Dent 6422 Current Legal Issues for the New Dentist 2
Dent 6444 Treatment Planning Clinic 1
Dent 6452 Dental Auxiliary Utilization Clinic (DAU) 0
Dent 6463 Emergency Clinic 0
Dent 6510 Clinical Pediatric Dentistry* 5
Dent 6623 Periodontology Clinic 2
Dent 6813 Operative Dentistry Clinic 3
Dent 6919 TMJ Disorders 1
Subtotal Credits 22

Fall Semester
Dent 6051 Comprehensive Care Clinic I 2
Dent 6222 Oral and Maxillofacial Surgery Clinic Rotation 1
Dent 6415 Professional Problem Solving 0
Dent 6434 Patient Management IV 1
Dent 6445 Treatment Planning Clinic 1
Dent 6453 Dental Auxiliary Utilization Clinic (DAU-I-II) 0
Dent 6464 Emergency Clinic 0
Dent 6523 Orthodontic Clinic Rotation 0
Dent 6624 Periodontology Clinic 2
Dent 6711 Endodontics Clinic 2
Dent 6814 Operative Dentistry Clinic 4
Dent 6914 Fixed Prosthodontics Clinic III 5
Dent 6923 Removable Prosthodontics Clinic III 3
Subtotal Credits 31

Spring Semester
Dent 6052 Comprehensive Care Clinic II 2
Dent 6223 Oral and Maxillofacial Surgery Clinic Rotation 1
Dent 6416 Professional Problem Solving 1
Dent 6435 Patient Management V 1
Dent 6454 Dental Auxiliary Utilization Clinic (DAU-I-II) 2
Dent 6465 Emergency Clinic 2
Dent 6515 Pediatric Dentistry Clinic 5
Dent 6524 Orthodontic Clinic Rotation 1
Dent 6625 Periodontology Clinic 2
Dent 6712 Endodontics Clinic 2
Dent 6815 Operative Dentistry Clinic 4
Dent 6915 Fixed Prosthodontics Clinic IV 5
Dent 6924 Removable Prosthodontics Clinic IV 3
Subtotal Credits 31

Our students are the first in the nation to become full members of their state professional association.

Students constitute the Eighth District Dental Society of the Minnesota Dental Association, participate on association committees, have voting privileges at its annual policy-making meeting, and are represented on the association’s Board of Trustees.
The University of Minnesota and the Twin Cities

With its four campuses, the University is one of the nation’s most comprehensive public institutions of higher learning.

University of Minnesota, Twin Cities Campus
A classic Big Ten campus in the heart of the Minneapolis-St. Paul metropolitan area, the Minneapolis campus provides a world-class setting for lifelong learning. The largest of the four campuses, it is made up of 20 colleges offering undergraduate, graduate and professional degrees. The Mississippi River divides the campus into the East Bank—where the School of Dentistry and the Academic Health Center are located—and the West Bank. Adjacent neighborhoods cater to student interests, and downtown Minneapolis and St. Paul are only minutes away.

The Twin Cities Area
With more than 2.5 million residents, the Twin Cities provides every educational and cultural advantage of a major metropolitan area. From an urban sculpture garden to the Mall of America, the Twin Cities is rich in entertainment and cultural events and offers something for everyone—a nationally recognized arts and theater community, a thriving entertainment industry, a host of Fortune 500 companies, exciting professional sports teams and shopping and restaurants for every taste. City neighborhoods feature unique shops and ethnic restaurants. The Mississippi River and numerous city lakes and parks provide year-round opportunities for outdoor recreation. Quality of life studies consistently rank the Twin Cities among the top metropolitan areas in the country.

Center for Contemporary Dentistry opens.

In the same year, the School receives a $5.1 million research grant to study temporomandibular joint disorders.

2001
Quick Facts

Enrollment
In the 2005–06 academic year, 761 students applied for 97 positions in the first-year class of dental students. Of those admitted, 69 percent were Minnesota residents; the average GPA was 3.64, the academic average on the DAT was 19.49, and the mean perceptual-motor ability score was 18.11. Ninety-six percent had completed four or more years of college.

In the 2005–06 academic year, 76 qualified students applied for 24 positions in the first-year class of dental hygiene students. Of those admitted, 22 were Minnesota residents; the average GPA was 3.37.

In Spring 2006, the School of Dentistry graduated 85 dentists; 37 were women. The School also graduated 35 dental hygienists.

The School annually awards more than $108,000 in high-ability incentive scholarships to qualified first-year dental students and $10,650 to dental hygiene students.

School of Dentistry Mission Statement
Vision: We set the standard in education, research and service.

Mission: The University of Minnesota School of Dentistry improves oral and craniofacial health by educating clinicians and scientists who translate knowledge and experience into clinical practice.

The School is committed to:
• graduating professionals who provide the highest quality care and service to the people of Minnesota and the world;
• discovering new knowledge through research, which will inspire innovation in the biomedical, behavioral and clinical sciences; and
• providing oral health care to a diverse patient population in a variety of clinical settings.

Core values: Excellence in all we do; strong sense of vision and purpose; serve the community and contribute to society; respect for the individual; continual pursuit of knowledge; personal and institutional integrity.

University of Minnesota Mission Statement
The University of Minnesota, founded in the belief that all people are enriched by understanding, is dedicated to the advancement of learning and the search for truth; to the sharing of this knowledge through education for a diverse community; and to the application of this knowledge to benefit the people of the state, the nation and the world.

The University’s mission, carried out on multiple campuses and throughout the state, is threefold:

Research and Discovery: Generate and preserve knowledge, understanding and creativity by conducting high-quality research, scholarship and artistic activity that benefit students, scholars, and communities across the state, the nation and the world.

Teaching and Learning: Share that knowledge, understanding and creativity by providing a broad range of educational programs in a strong and diverse community of learners and teachers, and prepare graduate, professional and undergraduate students, as well as non-degree-seeking students interested in continuing education and lifelong learning, for active roles in a multicultural and multicultural world.

Outreach and Public Service: Extend, apply and exchange knowledge between the University and society by applying scholarly expertise to community problems, by helping organizations and individuals respond to their changing environments, and by making the knowledge and resources created and preserved at the University accessible to the citizens of the state, the nation and the world.

In all of its activities, the University strives to sustain an open exchange of ideas in an environment that embodies the values of academic freedom, responsibility, integrity and cooperation; that provides an atmosphere of mutual respect, free from racism, sexism and other forms of prejudice and intolerance; that assists individuals, institutions and communities in responding to a continuously changing world; that is conscious of and responsive to the needs of the many communities it is committed to serving; that creates and supports partnerships within the University, with other educational systems and institutions and with communities to achieve common goals; and that inspires, sets high expectations for, and empowers the individuals within its community.
School launches its first regional dental clinic, in Hibbing.

Located at the Hibbing Community College, the clinic provides real-life, community-based practice experience for dental students.
Tests are usually about the information in your brain. In dental school, you’re also tested on how well you get your fingers and hands to move to that information.